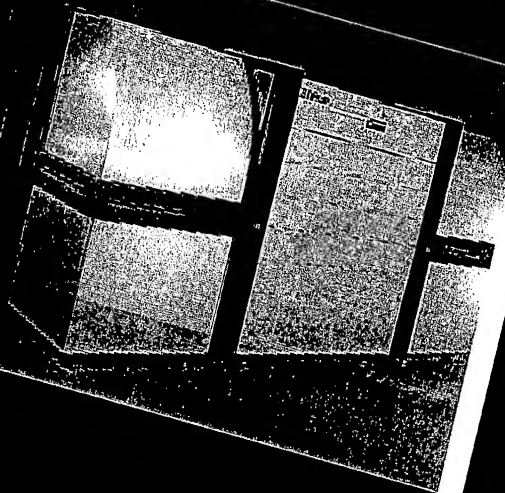


GEMINI



Double-sided exposure
Solid State laser
A true production
machine for higher yields

GEMINI
Laser Direct Imaging,
a profitable
reality for your shop

BARCO

በፊት ገንዘብ ለመጠየቅ ለማድረግ ለሚገባው ሰነድ ማሳሰቢያ ለማድረግ፣

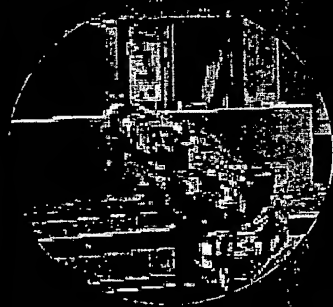
from \mathbb{R}^n to \mathbb{R}^n is the integration in your process flow

[illegible]

- ၂။ နိဂုံးချုပ်အား ခံစားစေရန် ပြုလုပ်ပါ။

[illegible]

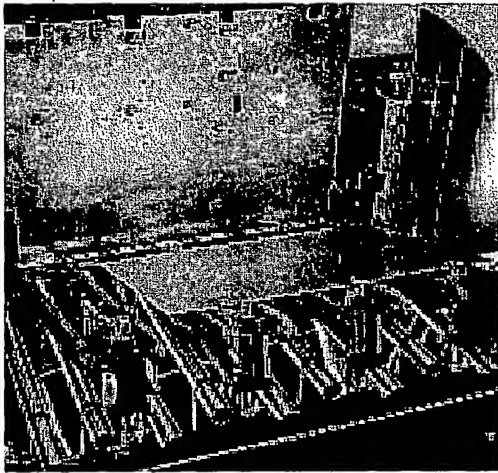
- 1) Lebensform und Lebensumgebung
- 2) Interaktion mit Wasser und Umwelt
- 3) Lebenszyklus und Reproduktion
- 4) Einfluss von Umwelt und Lebensform auf Reproduktion
- 5) Einfluss von Umwelt und Lebensform auf Reproduktion



Wird die entsprechende Regressionsfunktion in Abhängigkeit der erklärenden Variablen (z.B. Alter) geschätzt, so erhält man die Regressionsfunktion, die die Abhängigkeit zwischen der abhängigen Variable (z.B. Einkommen) und der erklärenden Variable (z.B. Alter) beschreibt. Die Regressionsfunktion ist die beste Schätzung der Abhängigkeit zwischen der abhängigen Variable und der erklärenden Variable, die auf Basis der verfügbaren Daten möglich ist.

[illegible]

- [illegible]

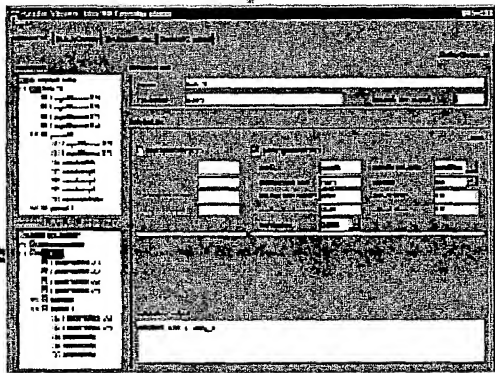


Automation

Panels may be input and output from the front or side of the GEMINI, and output with the same options. This can either be done by an operator, or by a conveyor.

Automation reduces the need for operators, this is obvious. A more important advantage, however, is improved imaging quality: every time an operator puts his hands into the imaging chamber to load, flip or unload a panel, contamination and handling defects are introduced. Automation means better yields.

- Reduced staff requirements
- Higher throughput and repeatability
- Completely sealed imaging chamber, class 1,000 inside
- Flexibility: multiple jobs and lots can be mixed and run together



BOARDSTATION: all-digital workflow management

Since LDI is an expensive and crucial piece of capital equipment, its utilization must be maximized. An all-digital workflow requires all-digital workflow management: BOARDSTATION.

BOARDSTATION stores all information in a database: job info, progress info, queue info, LDI machine status, job in progress, priorities. BOARDSTATION can manage the workflow of the whole department, change priorities, reroute jobs, and check machines. Data can be input from any CAM system.

User access is via the ubiquitous browser. BOARDSTATION is accessible from everywhere over the company network if you have the proper access rights, if desired even over the Internet: Barco service personnel could then review your LDI machine error log over the Internet.

- Multi-level user interface creates different security levels
- Variable customer info printed on each panel
- Manages the entire digital workflow

System architecture

- Open laser source platform
- Open architecture guarantees future upgrade flexibility
- Vibration-free design secures optimum image quality
- Smart design optimizes quick serviceability

Main Specifications

Panel size	Minimum panel size	14" x 16"
	Maximum panel size	24.5" x 32"
	Panel thickness	0.002" – 0.200"
Throughput	Up to 240 sides (120 panels) per hour	With a 10 mJ/cm ² resist sensitivity, 18" x 24", includes handling
	Panel switch time	10 s
Imaging	Resolutions	2000 or 4000 dpi
	Minimum feature size	2.0 mils
	Imaging accuracy	± 0.5 mils (over 18" x 24")
	Front-back registration	± 0.25 mils (over 18" x 24")
Laser	Solid State laser	
	Wavelength	355 nm
Photo-resist	Type	Dry film over substrate
	Thickness range	0.8 – 2.0 mils
	Sensitivity	60 mJ/cm ² or faster
	Conventional and LDI resists compatible	
	Working mode	Positive or negative
Registration	Mechanical panel preregistration	
	Fine registration with CCD cameras, transmission and reflection	
	Side-to-side registration intrinsic in optical system	
Environment	Room temperature	20°C to 25°C
	Room humidity	40 to 60% relative humidity
	Clean room	Class 10,000
Dimensions	Size (L x W x H)	4.0 m x 1.5 m x 1.8 m
	Weight	4000 kg

BARCO